

**510(k) Summary**  
**per 21 CFR §807.92**

**Submitter's  
Name and  
Address**

Boston Scientific Corporation  
One Scimed Place  
Maple Grove, MN 55311

**Contact Name  
and Information**

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Principal, Regulatory Affairs  
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**Date Prepared**

10 August 2011

**Proprietary  
Name**

Boston Scientific Rubicon™ Support Catheter

**Common Name**

Percutaneous Catheter

**Product Code**

DQY

**Classification**

Class II, 21 CFR Part 870.1250

**Predicate  
Device**

Spectranetics                      K033678                      23 February 2004  
Quick-Cross Support Catheter

**Device  
Description**

The Boston Scientific Rubicon Support Catheters are multipurpose intravascular devices. The catheters feature an ultra low profile tip, a lubricious hydrophilic coating that is applied to the surface of the distal 40 cm of the catheter, and 3 radiopaque markers spaced equally along the distal shaft which aid in estimating geometry within the vascular system. The distal radiopaque marker is positioned approximately 2mm away from the distal catheter tip. The proximal portion of the catheter includes one female luer-lock port connected to the proximal end of the catheter for guidewire entry and fluid injection. The Rubicon Support Catheters are available in 135cm and 150cm lengths. The shafts have varying stiffness and diameters. The device has a proximal shaft diameter of 3.4 Fr. tapering to a distal shaft diameter of 2.1Fr. The catheter is compatible with 0.014 in (0.36 mm) guidewires.

**Intended Use of  
Device**

The Rubicon Support Catheters are multipurpose intravascular devices that can be used for wire exchanges, saline, contrast injection and to support a guidewire or other CTO (Chronic Total Occlusion) devices. The Support Catheter can be back loaded over a pre-positioned guidewire or may be introduced through a previously positioned appropriately sized introducer sheath and advanced to the targeted area of the lesion. The guidewire is advanced through the lesion and the support catheter is advanced over the wire until the guidewire exits the lesion and the Support Catheter reaches the patent lumen of the vessel.

**Indications for  
Use**

The Rubicon Support Catheter is intended to facilitate placement and support of guidewires and other interventional devices within the peripheral vasculature and to allow for exchange of guidewires, and provide a conduit for the delivery of saline or contrast solutions.

**Comparison of  
Technological  
Characteristics**

The Rubicon™ Support Catheter incorporates substantially equivalent device design and materials, packaging design and materials, fundamental technology, manufacturing processes, sterilization process as predicate Boston Scientific devices and intended use as those featured in the predicate device, Spectranetics Quick-Cross Support Catheter (K033678).

**Comparison to Predicate Device Characteristics**

	Proposed Device Rubicon™ Support Catheter					Predicate Device Quick-Cross (K033678)				
	Sterile Saline		Contrast*			Sterile Saline		Contrast*		
Infusion Flow Rate	Length (cm)	150 psi	300 psi	150 psi	300 psi	Length (cm)	150 psi	300 psi	150 psi	300 psi
	135	1.3	2.3	0.4	0.9	135	1.1	1.6	0.4	1.0
	150	1.3	2.2	0.4	0.9	150	1.0	1.5	0.4	0.7
Effective Lengths	135 cm and 150 cm					90 cm, 65 cm, 135 cm and 150 cm				
Radiopaque Markers	3 – equidistant (15 mm)					3 – equidistant (15 mm, 50 mm)				
Distal Radiopaque Marker	2 mm from distal tip					3 mm from distal tip				
Hydrophilic coating	Distal 40 cm					Distal 40 cm				
Recommended Introducer Sheath Compatibility	4F					4F, 5F				
Recommended Guidewire	0.014 inches					0.014, 0.018, 0.035 inches				
Lumen	Single lumen					Single lumen				
Proximal Shaft Outer Diameter	0.044 inches					0.039, 0.044, 0.063 inches				
Distal Shaft Outer Diameter	0.027 inches					0.026, 0.030, 0.050 inches				
Maximum Infusion Pressure	300 psi					300 psi				
Classification	Class II per 21 CFR 870.1250					Class II per 21 CFR 870.1250				

\*Tested with 75% Omnipaque™, 25% Saline Solution

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**Performance  
Data**

Bench testing and leveraged/new biocompatibility testing for the Rubicon Support Catheter were performed to support a determination of substantial equivalence. The results of these tests provide reasonable assurance that the proposed device has been designed and tested to assure conformance to the requirements for its intended use. No new safety or performance issues were raised during the testing.

Biocompatibility was leveraged from predicate BSC testing.

MEM Elution Cytotoxicity	Hemolysis Assay Indirect Extraction
Guinea Pig (Maximization) Sensitization	Partial Thromboplastin Time
Intracutaneous Reactivity	In Vitro Hemocompatibility Assay
Systemic Toxicity (Acute)	Complement Activation
Materials Mediated Rabbit Pyrogen	USP Physicochemical
Hemolysis Assay Direct Contact	Natural Rubber Latex

The following screening biocompatibility tests were completed on the Rubicon™ Support Catheter:

MEM Elution Cytotoxicity	Hemolysis Assay Direct Contact
USP Physicochemical Latex	Hemolysis Assay Extract

The following in-vitro performance tests were completed for the Rubicon™ Support Catheter:

Effective Length	Sheath Insertion and Withdrawal Force
Inner Diameter – Distal Shaft	Catheter Shaft Burst Pressure
Outer Diameter – Proximal Shaft	Catheter Tensile
Outer Diameter – Distal Shaft	Shaft Kink Resistance
Marker Band Spacing	Torque Strength
Contrast Flow Rate	Radiopacity
Flow rates for DFU labeling	Coating Integrity

**Conclusion**

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Based on the indications for use, technological characteristics, safety and performance testing, the Rubicon™ Support Catheter has been shown to be appropriate for its intended use and is considered to be substantially equivalent to the Spectranetics Quick-Cross Support Catheter (K033678).

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration  
10903 New Hampshire Avenue  
Document Control Room—WO66-G609  
Silver Spring, MD 20993-0002

NOV - 9 2011

Boston Scientific Corporation  
c/o Glenn Jacques  
One Scimed Place  
Maple Grove, MN 55311

Re: K112303  
Trade/Device Name: Rubicon™ Support Catheter  
Regulation Number: 21 CFR 870.1250  
Regulation Name: Percutaneous Catheter  
Regulatory Class: Class II  
Product Code: DQY  
Dated: August 10, 2011  
Received: August 11, 2011

Dear Mr. Jacques:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

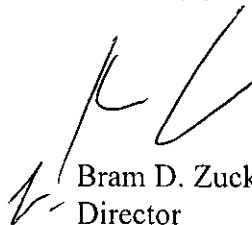
If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm> for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address <http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm>.

Sincerely yours,



Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

K112303

### Indications for Use

510(k) Number (if known): K112303

Device Name: Rubicon™ Support Catheter

#### Indications for Use:

The Rubicon Support Catheter is intended to facilitate placement and support of guidewires and other interventional devices within the peripheral vasculature and to allow for exchange of guidewires, and provide a conduit for the delivery of saline or contrast solutions.

Prescription Use   X    
(Per 21 CFR 801 Subpart D)

AND/OR

Over The Counter Use         
(21 CFR 801 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)

  
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(Division Sign-Off)  
Division of Cardiovascular Devices

510(k) Number   112303